Task: Temperature Converter

```
package opp;
import java.util.Scanner;

public class TemperatureConverter {
public static void main(String[] args) {
Scanner input = new Scanner(System.in);
System.out.println("Welcome to the Temperature Converter!");
System.out.print("Enter a temperature value: ");
double temperature;
String unit;

while (true) {
try {
temperature = Double.parseDouble(input.nextLine());
break;
} catch (NumberFormatException e) {
System.out.print("Invalid input. Please enter a valid temperature value:
");
}
}

while (true) {
System.out.print("Enter the unit (C for Celsius, F for Fahrenheit): ");
unit = input.nextLine().toUpperCase();
if (unit.equals("C") || unit.equals("F")) {
break;
} else {
System.out.println("Invalid unit. Please enter C or F.");
}
}

double convertedTemperature;
if (unit.equals("C")) {
convertedTemperature = (temperature * 9/5) + 32;
System.out.println("Converted temperature in Fahrenheit: " +
convertedTemperature + " °F");
} else {
convertedTemperature = (temperature - 32) * 5/9;
System.out.println("Converted temperature in Celsius: " +
convertedTemperature + " °C");
}

input.close();
}
}
```

OUTPUT:

```
Welcome to the Temperature Converter!
Enter a temperature value: 47
Enter the unit (C for Celsius, F for Fahrenheit): c
Converted temperature in Fahrenheit: 116.6 °F
```

```
Welcome to the Temperature Converter!
Enter a temperature value: 45
Enter the unit (C for Celsius, F for Fahrenheit): F
Converted temperature in Celsius: 7.222222222222222 °C
```

```
Welcome to the Temperature Converter!
Enter a temperature value: 58C
Invalid input. Please enter a valid temperature value:
```